

No Print

METHOD OF OPERATION
MAKE BUSY CIRCUIT

Relay Call Indicator Trunk - Full Mechanical Switching System.

GENERAL DESCRIPTION

1. This circuit is used between a manual relay call indicator office and a full mechanical office. Its purpose being to make groups of trunks incoming to the manual office busy at the mechanical office by the operation of a non-locking key at the manual office. This busy feature will prevent the mechanical apparatus at the mechanical office from selecting trunks to a relay call indicator position that is unoccupied. The operation of the non-locking key makes the group of trunks busy by connecting ground to their sleeve terminals and the second operation of the key disconnects the ground thereby removing the busy condition. The cam cuttings on cams E to T respectively are cut at different positions, this being done to distribute the load through the contacts more evenly thereby reducing the chances of arcing.

DETAILED DESCRIPTION

OPERATION

2. When the "make busy" key at the manual relay call indicator office is operated, the circuit through the L relay is closed, causing the relay to operate, in turn causing the L-1 relay to operate and lock through its outer winding to ground on cam D provided the switch remains in position 1. The operation of the L-1 relay with the switch in position 1 causes the lamp at the monitoring board to light, the circuit being closed through cam C. The operation of the L-1 relay also closes a circuit through the motor magnet which operates and moves the switch to position 6. As soon as cams C and D move cut of position 1, the circuit through the lamp is opened, causing the lamp to be extinguished and also opening the circuit through the outer winding of the L-1 relay. In case the mechanism should not function so as to leave position 1, the lamp will remain lighted at the monitoring board as a trouble signal. In position 6 the trunks are made busy, ground being connected to their sleeves. When the make busy key is released, the L relay releases, in turn releasing the L-1 relay. The release of the L-1 relay causes the rotor magnet to operate and move the switch to position 7 and there keeping the trunks busy. The groups of trunks are made busy from positions 1-3/4 to 8 inclusive. When the key is again operated the operation is as previously described. The rotor moves the switches into position 9 making the trunks idle, and when the key is released the switch is moved into position 1 restoring the circuit to normal.

1. The first group of people who are interested in the study of the history of the world are the historians. They are the people who study the past and write about it. They are the people who tell us what happened and why it happened. They are the people who help us to understand the world and ourselves.

CIRCUIT REQUIREMENTS

OPERATE

NON-OPERATE

RELEASE

B83
(L)

After a soak of ap-
proximately .021 amp.
Test .005 amp.
Re-adj. .0045 amp.

After a soak of approx-
imately .021 amp.
Test .0028 amp.
Re-adj. .003 amp.

Spl.
El30
per
D-20490
(L-1)
Inner
Wdg.

Test .025 amp.
Re-adj. .016 amp.

Test .009 amp.
Re-adj. .010 amp.

Outer
Wdg.

Hold:
Test .047 amp.

ENG. CHD-JO.
4-10-22.

CHK'D. CHW.

APPROVED C. L. SLUYTER, G.M.I.

1944-1945

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